Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently amended) A data transmission system, comprising a transmitter (10) and a receiver (12), wherein the transmitter (10) is arranged to send data bursts with a low duty cycle of less than 5% at transmission timing points, the transmitter comprising a pseudo-random signal generator (16) which governs the time delay between successive timing points and a local oscillator (15) which controls the time of data transmission, and wherein the receiver comprises a corresponding pseudo-random signal generator (22) and local oscillator (24), and wherein power is applied to the receiver substantially only corresponding in time to the timing of the data bursts, wherein at least one of the data bursts includes data that is utilized by the pseudo-random signal generator of the receiver to synchronize the pseudo-random signal generator of the receiver to the pseudo-random signal generator of the transmitter.

2.   (Currently amended) A system as claimed in claim 1, wherein

the transmitter (10) is arranged to send data bursts with a duty cycle of less than 1%.

3.   (Currently amended) A system as claimed in claim 1 or 2, wherein the transmitter (10) and receiver (12) each include a power source (18,32) comprising a non-rechargeable battery.

4.   (Currently amended) A system as claimed in any preceding claim, wherein each pseudo-random signal generator (16,22) comprises a maximal length feedback shift register, and where the data comprises data bits that are utilized to update a sequence of each maximal length feedback shift register.

5.   (Currently amended) A system as claimed in any preceding claim, wherein each data burst comprises a header section and a data section, and wherein the header section for a sub-set of the data bursts comprises a sequence which is unique compared to the header section and data section of the data bursts other than the sub-set of the data bursts, thereby to enable the receiver to obtain bit timing information.

6.   (Currently amended) A system as claimed in any preceding

claim, wherein each data burst comprises a header section and a

data section, and wherein the header section for a sub-set of the

data bursts comprises the data defining the that modifies a

sequence of the pseudo-random signal generator of the receiver and

thereby, modifies a time period to the next message.

7.   (Original)   A system as claimed in claim 5 or 6, wherein

the header comprises address data which identifies the transmitter

to the receiver.

8.   (Currently amended) A system as claimed in claim 7, wherein

the address data is used in combination with the a current output

from the pseudo-random signal generator (16,22) of the transmitter

to generate a modified pseudo random sequence output by each of the

pseudo-random signal generators.

9.   (Currently amended) A system as claimed in any preceding

claim, wherein the transmitter is for attachment to a shoe (40),

and comprises an accelerometer and a processing unit, the

processing unit integrating the detected acceleration over time to

obtain instantaneous speed values which are transmitted in the data
bursts.

10.   (Currently amended) A system as claimed in claim 9, wherein
the receiver -(12)- is for wearing on the wrist of the user of the
system.

11.   (Currently amended) A system as claimed in any preceding
claim, wherein each local oscillator (15,28) comprises a 32768Hz
quartz oscillator.

12.   (New)   A system as claimed in claim 5, wherein the unique
header comprises an additional bit of data compared to the header
section of the data bursts other than the sub-set of the data
bursts.

13.   (New)   A system as claimed in claim 5, wherein the unique
header comprises a repeating sequence that is unique.

14.   (New)   A system as claimed in claim 13, wherein the
repeating sequence is a repeating sequence of a single digit.

GB000120-amd-12-01-05.doc   5

15.   (New)   A system as claimed in claim 1, wherein each data

burst comprises a header section and a data section, and wherein

the data section is an encoded data section.

16.   (New)   A system as claimed in claim 15, wherein the encoded

data is compared at the receiver to data bit patterns that are

potentially valid for error trapping .

17.   (New)   A system as claimed in claim 1, wherein the data

bursts comprises speed data and distance data related to a

transported speed and distance of the transmitter.

18.   (New)   A system as claimed in claim 17, wherein the data

bursts are transmitted in one of two modes, a first mode is a

static mode wherein housekeeping data is transmitted and speed data

is not transmitted and a second mode is a moving mode wherein the

speed and distance data is transmitted.